

Construct of Amb a1 cDNA - II

Full-length Amb a1 (396 codon)



Plant Leader Sequence (36AA)

Δ 36 Amb a1



ssHA Δ 36 Amb a1



Virus Leader Sequence (14AA)

Comparison of codon usage (Plant vs. Human)

HIS

	Plant	Human
CAT	83%	0%
CAC	17%	100%

GLN

	Plant	Human
CAA	90%	30%
CAG	10%	70%

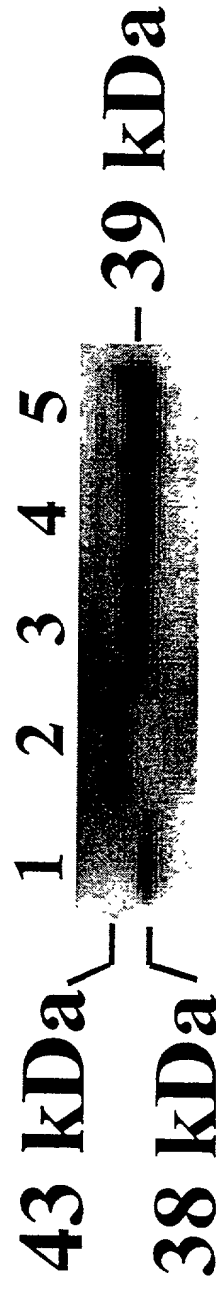
ASP

	Plant	Human
GAT	76%	31%
GAC	24%	69%

GLU

	Plant	Human
GAA	69%	25%
GAG	31%	75%

Expression of Amb a1 in COS-7 cell - III



- 1: Purified AgE
- 2: Amb a1/pNDK (x 1)
- 3: Δ36Amb a1/pNDK (x 3)
- 4: ssHAΔ36Amb a1/pNDK (x 3)
- 5: hssHAΔ36Amb a1/pNDK (x 10)

1000
 750
 500
 250
 0

Induction of Antigen-specific Antibody and Cytokine *in vivo* - III

Fig 4A

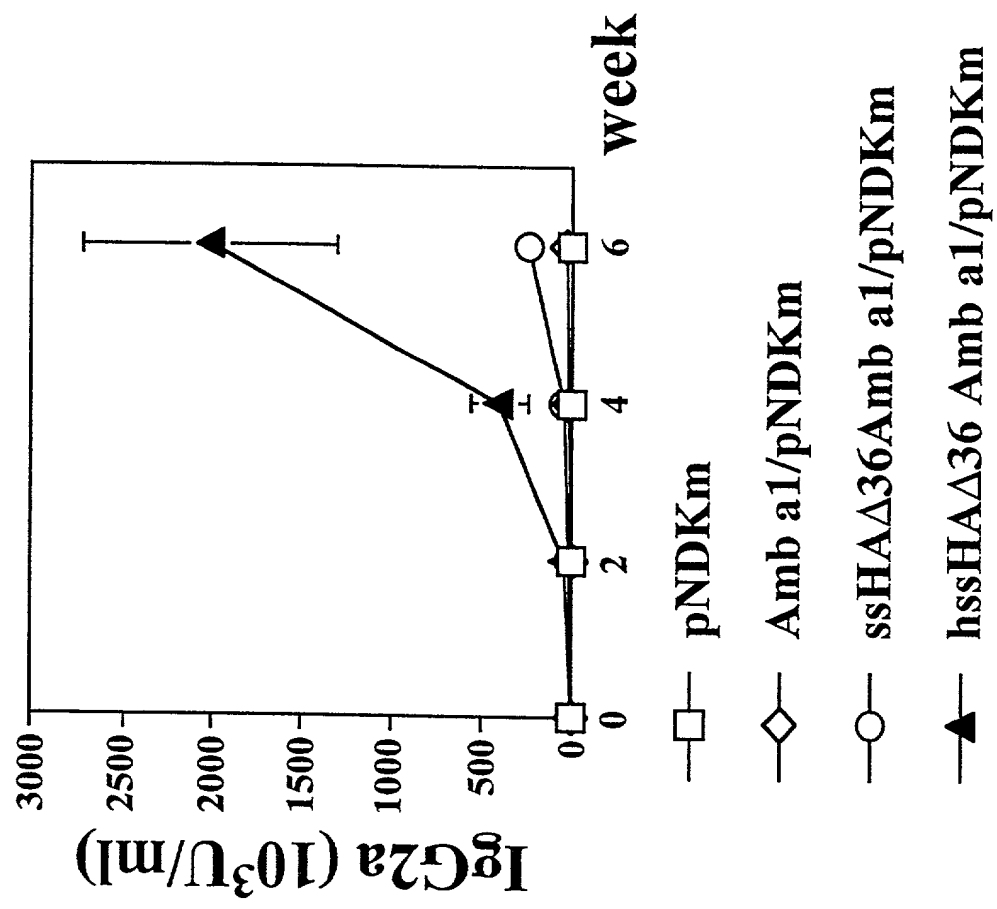
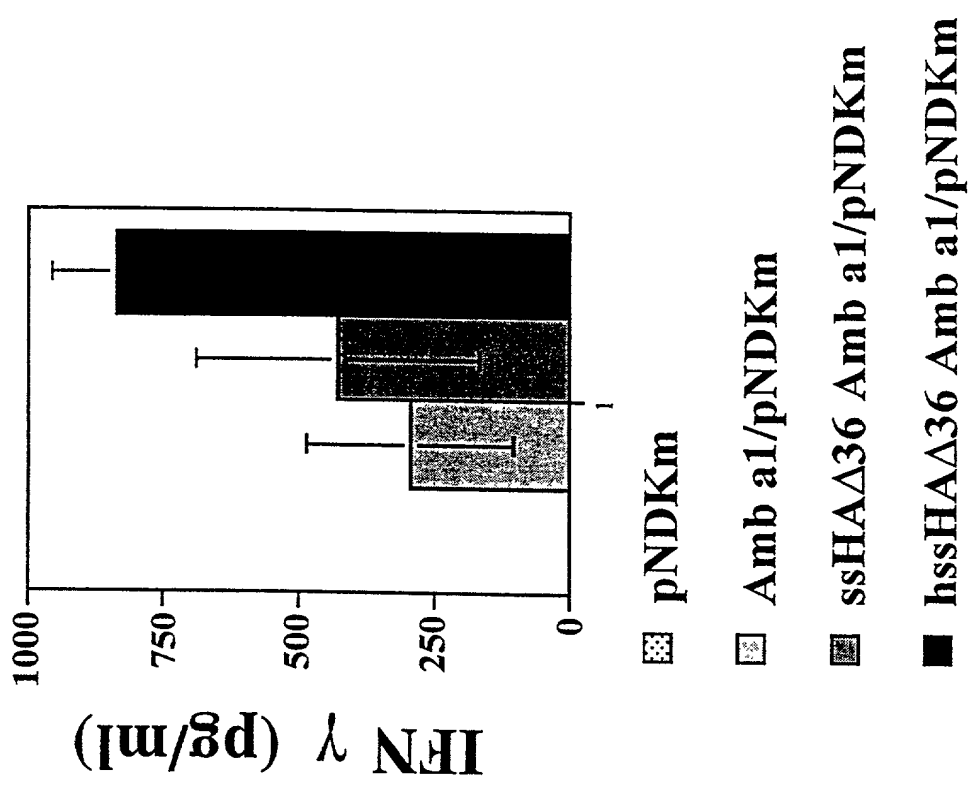


Fig. 4B



Induction of Antigen-specific Antibody and Cytokine *in vivo* - VI

(Co-injection of ISS-ODN with 50 μ g of hssHA Δ 36Amb a1/pNDK μ m)

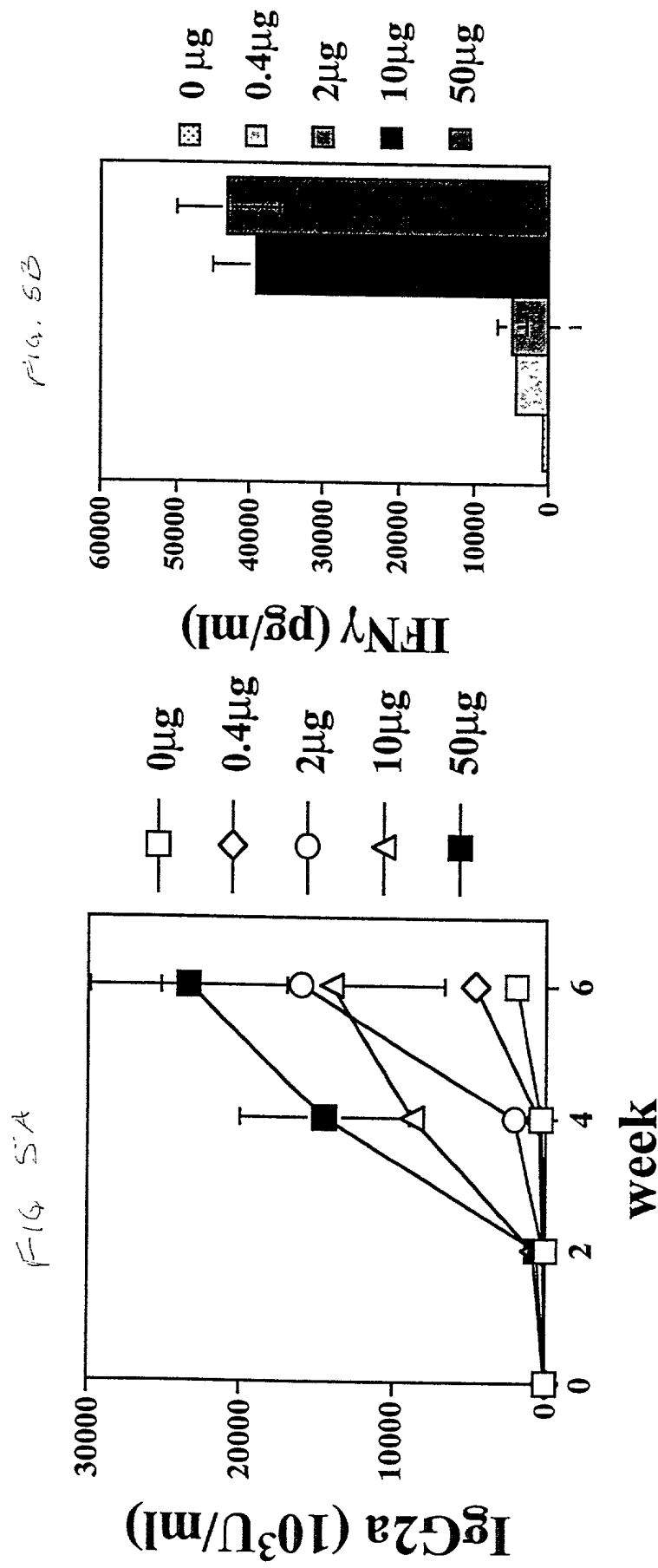
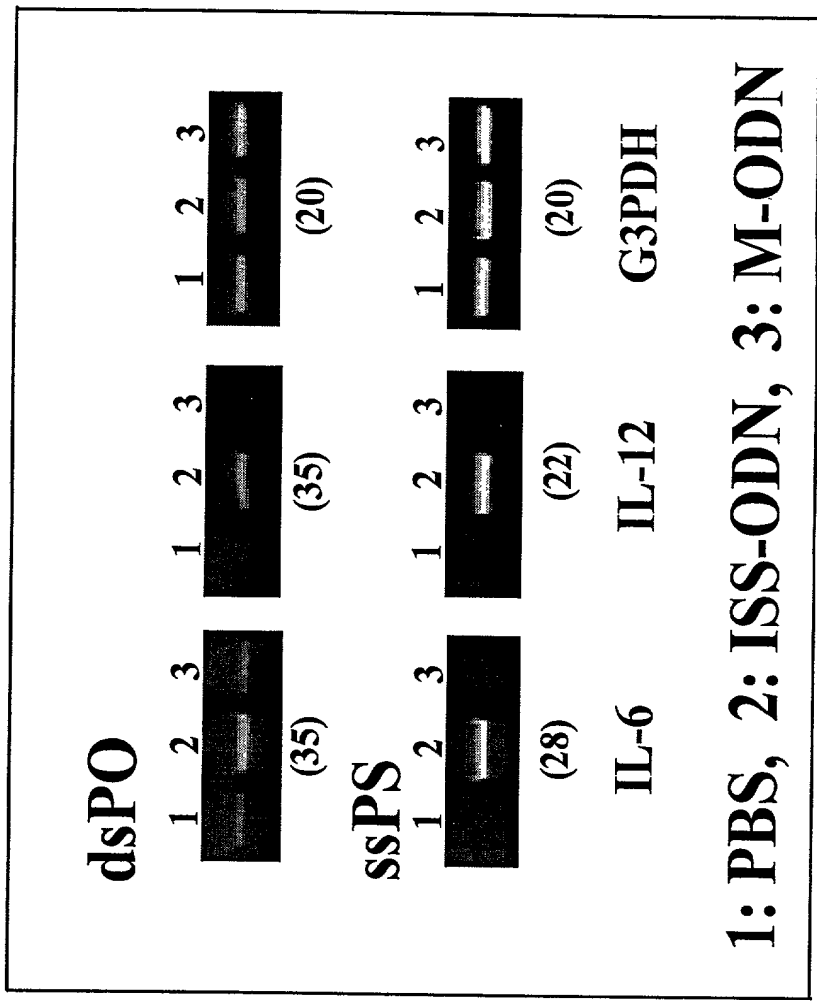


FIG. 6
The effect of the amount of ISS-ODN on the expression of IL-6 in spleen cells after 2 hr post-injection.

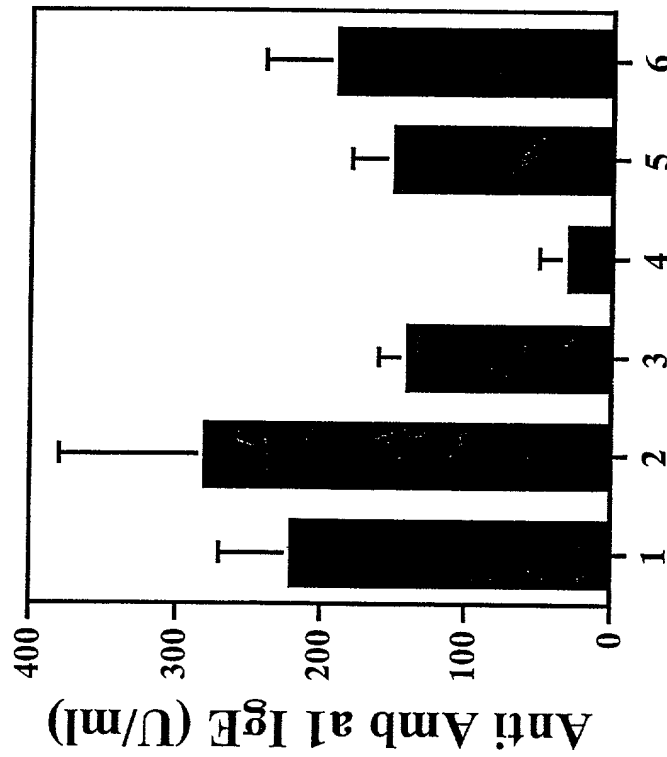
In vivo Efficacy of ISS-ODN (dsPO vs. ssPS)

- Injection of ISS-ODN(i.v.)
[200µg/mouse]
- Isolation of spleen after 2
hr post-injection
- Isolation of mRNA
- Detection of IL-6/IL-12
transcript by RT-PCR



Reduction of Amb a1-specific IgE *in vivo* (week 8)

Fig. 7A



- 1: PBS
- 2: pNDK m
- 3: pNDK m/hssHAΔ36 Amb a1
- 4: pNDK m/hssHAΔ36 Amb a1 + ISS-ODN
- 5: pNDK m/hssHAΔ36 Amb a1 + M-ODN
- 6: ISS-ODN

Amb a1: 10μg/mouse
alum: 0.5 mg/mouse
pDNA: 50μg/mouse
ISS/M-ODN: 50μg/mouse

